

Notice of Allowability

Application No.

10/712,706

Examiner

Jason Proctor

Applicant(s)

ROOT ET AL.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/15/07
2. ☒ The allowed claim(s) is/are 1-11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

Claims 1-11 were rejected in the Office Action of 28 February 2007.

Applicants' submission on 15 May 2007 has amended claims 1, 2, 6, 8, 9, and 11.

Claims 1-11 are pending in this application.

Claims 1-11 are allowed.

Response to Arguments – 35 USC § 112

1. The previous rejections under 35 U.S.C. § 112 have been withdrawn in response to the 15 May 2007 submission, which has overcome each of the previous rejections.

Regarding the notation used in the claims, Applicants submit that:

[A]ll these terms are clearly defined in the body of the disclosure, and need not be defined for a second time in the Claims. The term " $V_j(t)$ " for example is explained in lines 1-4 on Page 4 of the Specification, the term " $f_k(V, a^k)$ " is explained in lines 4-11 of Page 4 of the Specification, and so on. The usage of the terms in the Claims is consistent with their definitions in the Specification.

The Examiner thanks Applicants for this clarification and finds the corresponding arguments persuasive.

Response to Arguments – 35 USC § 101

2. The previous rejections under 35 U.S.C. § 101 have been withdrawn in response to the 15 May 2007 submission, which has overcome the previous rejections.

Response to Arguments – 35 USC §§ 102 and 103

3. The previous rejections under 35 U.S.C. §§ 102 and 103 are withdrawn in response to the 15 May 2007 submission and in light of Applicants' arguments, which have been found persuasive.

4. The following is an examiner's statement of reasons for allowance:

Applicants' arguments persuasively distinguish the claimed invention over the prior art references of record.

Additionally, while signals of the form described in claims 1 and 11 for $V(t)$ are known in the prior art (see "Time-Mapped Harmonic Balance" by O.J. Nastov and J.K. White, page 641), this merely teaches the representation for an input signal in the claimed invention.

The closest prior art fails to teach or suggest:

(Claims 1) "said simulator component returning a signal value determined by said $f_k(V, a^k)$... when said circuit simulator provides values for V at said first simulator input port for at least one value of k " and "using said determined amplitude to determine values for a set of constants, a^k , such that a function $f_k(V, a^k)$ provides an estimate of the current $I_k(t)$ leaving said output port at a frequency ω_k when a signal having the [claimed] form is input to said input port of said first circuit by said circuit simulator" (and corresponding language in claim 11)

in combination with the other claimed elements.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

O.J. Nastev and J.K. White, "Time-Mapped Harmonic Balance", teaches methods of representing electrical signals using equations of a form similar to that recited in claims 1 and 11, but fails to teach or suggest the remaining components of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

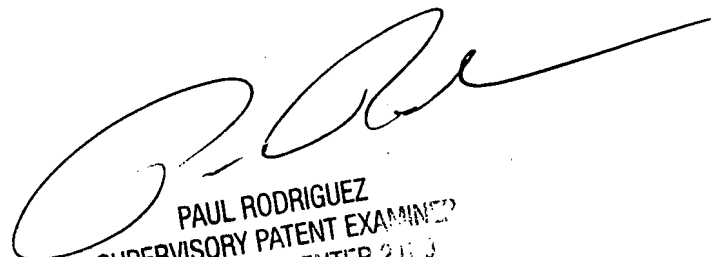
Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of

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an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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